GEMSTAR®

System Configuration Guide

Hospira

Overview

The Hospira GemStar Pump is available in the following factory configurations:

6-Therapy	(List 13086)
7-Therapy	(List 13087)
Pain Management	(List 13088)

The Configuration Menu allows the biomedical technician to configure several of the pump's functions. The Configuration Menu varies depending on the factory configuration of the pump.

Note: If the current configuration is the same as the factory defaults, the pump displays `CURRENT CONFIG: DEFAULT`. *(See Figure 1 for a sample printout of a 7-therapy pump with factory default settings) If any factory defaults have been changed, the pump displays* `CURRENT CONFIG: CUSTOM`. *(See Figure 2 for a sample printout of a 7-therapy pump with custom settings)*
If an item is configured that makes other items unavailable, the pump displays `DISABLED` *in the line for those items.*

*Note: From the submenus, press [**BACK-UP**] to return to the Custom Mode main menu.*

Accessing Custom Mode

Note: Keypad lock levels do not affect access to the Custom Mode.

1. From STOP or PROGRAMMING mode, press [**OPTIONS**].
2. Select `2 HISTORIES`.
3. Select `4 CONFIGURATION`. The current configuration displays.
4. Press [**CHANGE**]**.** The pump displays `CUSTOM MODE ACCESS CODE`.
5. To enter the CUSTOM mode press [**PURGE**], [**NO**], [**OPTIONS**], [**BACK-UP**], [**START**]**.** The Custom Mode Main Menu displays.

Note: You must enter the code within 30 seconds or the pump will return to the previous display.

Tip: If you press an invalid key, press [**CHANGE**] to zero out the display and start again.

Frequently Used Keys

▼ ▲	Press the up and down arrows to scroll through the configuration menu and display messages. Press the up arrow to insert a decimal point in a numeric value.
0 – 9	Press the number keys to select menu items and to enter numeric values. If the desired option is `01`, you must press [**0**] and [**1**]. Use the associated number key to select or deselect settings.
CHANGE	If you enter an incorrect numeric value, press [**CHANGE**] before pressing [**YES/ENTER**] to reset the value to zero.
YES / ENTER	Press [**YES/ENTER**] to: Answer YES to (Yes or No) display messages. Accept selected settings and return to the Configuration Menu.
NO	Press [**NO**] to answer NO to (Yes or No) display messages.
BACK-UP	Press [**BACK-UP**] to return to a previous display without accepting changes (when in sub-menu).

Configuring the Pump

1. To configure the pump, press [ENTER] to confirm selection in submenu. Press [BACKUP] to return to configuration menu. If configuration is complete, press YES to save all configurations.
2. Select menu item. Use up and down arrows to view menu and submenu items. Note: press both [check SOM wording]
3. Select submenu.

NOTE: DO NOT PRINT WITHOUT BEING CONNECTED. If you do not have a cable, select No. SOM.

*NOTE: Press both keys (e.g., [**0**] and [**1**]) to access sub-options, such as `01 THERAPIES`. From the submenus, press [**BACK-UP**] to return to the Custom Mode main menu.*

The following table lists which functions are available under each of the Configuration submenus:

Select this menu item:	To configure the following functions:	Default Settings	Available Setting	Description
1 RESET DEFAULTS	NA	YES	YES OR NO	Select `YES` to reset the pump to factory configured settings.
2 GENERAL PUMP	`01 THERAPIES`	`T` (TPN) `P` (Pain Management) `I` (Intermittent) `C` (Continuous) `W` (Weight Dosed) `mL` (mL/hr Only) `V` (Variable)	Any combination of the seven therapies	Use the associated number key to select or deselect therapies. For example, press [**2**] to select or deselect Pain Management. The pump will only display selected therapies during programming. This item is only available if the pump is configured for 6 or 7 Therapies.
	`02 FORCED REVIEW`	YES	`YES OR NO`	Select `NO` to turn `OFF FORCED REVIEW`. The pump will not prompt for a Program Review after programming.
	`03 SHIFT TOTALS`	YES	`YES OR NO`	Select `NO` to turn `OFF SHIFT TOTALS`. The pump will not print or display `SHIFT TOTALS` in the Histories Menu.
	`04 DISPLAYED TOTALS`	CONTAINER	`SHOW CONTAINER` `SHOW SHIFT`	Select `SHOW SHIFT` to display current shift totals in the Run Mode and Stop Mode displays. The pump shows the first line of the display as: `SHIFT XXXX.X mL`
	`05 CONTACT PHONE NUMBER`	blank	Any combination of digits and/or decimal points up to 16 characters	Enter up to 16 characters using the number keys and [**UP ARROW**] (e.g., 888.555.1234). This number will display when the Operation Test Call Back message displays and when a service alarm occurs.

(Continued on next page)

Select this menu item:	To configure the following functions:	Default Settings	Available Setting	Description
2 GENERAL PUMP (Continued)	06 AIR SENSITIVITY	ALL SELECTIONS	ON *(0.5 mL)* 2 mL ALL SELECTIONS *(ON, 2 mL, OFF)*	Setting the Air Sensitivity to 2 mL will not affect the ON default setting in mL/hr Only and Weight Dosed programs. If the Air Sensitivity is configured to ON or 2 mL, the AIR SENSITIVITY message will not display when entering a new program or changing a program. The user will not be able to change the Air Sensitivity setting through the Options Menu.
	07 DISP OT WARN *(Display Operation Test Warning)*	NO	YES OR NO	Select YES to display the Operation Test Warning at power-on when the call back date is reached.
	08 OT FREQUENCY *(Operation Test Frequency)*	365 DAYS	1 - 365 DAYS	Enter the number of days between Operation Tests.
	09 OT CALL BACK *(Operation Test Call Back)*	DISABLED	1 - 364 DAYS	The Operation Test Call Back displays a message to the user when the Operation Test is due. Enter the number of days prior to the Operation Test due date for the call back message to display. If DISP OT WARN is enabled, the default OT callback is 7 days.
3 KEYPAD LOCK	01 LOCK CODE	13000	Any combination of 3-5 digits	The Lock/Unlock Access Code must consist of 3 to 5 digits. The default access code for Rate Change, Container Lock, and Full Lock is 13000. The Therapy Lock Access Code is the reverse of the Lock/Unlock Access Code. The default access code for Therapy Lock is 00031.
	02 LOCK REMINDER	NO	YES OR NO	Select YES to display a Lock Reminder when the pump is unlocked or locked only under Therapy Lock and is placed in Run Mode. Select NO to disable the Lock Reminder when the pump is unlocked or locked only under Therapy Lock and is placed in Run Mode.

(Continued on next page)

Select this menu item:	To configure the following functions:	Default Settings	Available Setting	Description
3 KEYPAD LOCK (Continued)	03 UNLOCK PROMPT	NO	YES OR NO	Select YES to display the LOCK SEQUENCE NUMBER screen when the pump is locked under a Full, Container or Rate lock and 2 or 3 is selected on the RESUME PROGRAM screen.
	04 AUTO LOCK	1 NO AUTO LOCK	1 NO AUTO LOCK 2 RATE CHANGE 3 CONTAINER 4 FULL	Select one of the lock level settings to force the pump to lock the keypad under the selected lock level when the user presses [**START**]. For example, select CONTAINER auto lock and the pump will automatically apply the Container lock level when the user presses [**START**].
4 BOLUS	01 BOLUS PLACEBO	YES	YES OR NO	This setting determines how the pump responds when the user requests a bolus dose and a bolus dose in NOT available. If YES is selected, the pump sounds 3 beeps (same as in a regular bolus delivery); however, the pump does not display the asterisks to indicate bolus delivery. If NO is selected, the pump does not sound any beeps or display asterisks.
	02 PM MAX BOLUS *(Pain Management Maximum Bolus)*	25 mL	0.1 - 25 mL	Enter the maximum bolus amount for a Pain Management program.
	03 PM BOLUS RATE *(Pain Management Bolus Rate)*	125 mL/hr	1 - 125 mL/hr	Enter the bolus delivery rate for a Pain Management program.
	04 VT BOLUS RATE *(Variable Time Bolus Rate)*	400 mL/hr	1 – 1000 mL/hr	Enter the bolus delivery rate for a Variable Time program.
	05 MINIMUM LOCKOUT	5 minutes (Domestic) 3 minutes (International)	1 - 5 minutes	Enter the minimum lockout interval for bolus delivery.

Select this menu item:	To configure the following functions:	Default Settings	Available Setting	Description
5 PM (SPECIFIC)	01 PAIN MGMT (PM) *(Pain Management)*	CONT (continuous) BOLUS (bolus) C+B (continuous + bolus)	Any combination of the three delivery types	The pump will only display selected delivery types during programming.
	02 PM UNITS *(Pain Management Units)*	mg, mcg, mL	Any combination of the three units	The pump will only display selected units during programming.
	03 PM MAX RATE *(Pain Management Maximum Rate)*	25 mL/hr	0.1 - 25 mL/hr	Enter the maximum delivery rate for a Pain Management program.
	04 PM MAX LD *(Pain Management Maximum Loading Dose)*	25 mL	0.1 - 25 mL	Enter the maximum loading dose for a Pain Management program.
	05 PM LD RATE *(Pain Management Loading Dose Rate)*	125 mL/hr	1 – 125 mL/hr	Enter the loading dose rate for a Pain Management program.
	06 PM DOSE LIMIT *(Pain Management Dose Limit)*	ALL LIMITS	1 HOUR 4 HOUR # BOLUSES/HOUR ALL LIMITS	Select 1-Hour, 4-Hour, or # Boluses/Hour to disable PAIN MANAGEMENT DOSE LIMIT SELECTION when entering a new program or when changing a program. The pump will display only the selected dose limit screen. For example, if 4 HOUR is selected, the SET 4-HOUR DOSE LIMIT screen will display when a new program is entered or a program is changed. No other dose limit options will be available.
	07 PM MAX PRIME *(Pain Management Maximum Prime Volume)*	8.3 mL	4.6 – 8.3 mL	Enter the maximum pain management priming volume, which determines the total volume that can be primed during a Pain Management program between an event that allows priming and the time [**START**] is pressed.

Select this menu item:	To configure the following functions:	Default Settings	Available Setting	Description
6 OTHER	01 PIGGYBACKING	YES	YES OR NO	Select **NO** to disable Piggybacking options.
	02 WD UNITS *(Weight Dosed)*	01 mcg/kg/min 02 mcg/kg/hr 03 mcg/min 04 mg/kg/min 05 mg/kg/hr 06 mg/min 07 mL/hr 08 NOT USED 09 NOT USED 10 NOT USED 11 NOT USED 12 NOT USED 13 NOT USED 14 NOT USED 15 NOT USED 16 NOT USED	mcg/kg/min mcg/kg/hr mcg/min mcg/hr mg/kg/min mg/kg/hr mg/min mg/hr grams/hr ng/kg/min U/kg/hr U/min U/hr mUn/min mEq/hr mL/hr NOT USED	This setting allows you to configure from 1 - 16 different units of measure for weight dosed therapies. Press the associated number keys to add or change a setting. For example, press [**0**], [**8**] to add a unit of measure. The first available unit of measure will display. Use the arrow keys to scroll through the available units of measure. Press [**YES/ENTER**] to select the displayed unit of measure.
	03 WD PRECEDEX	NO	YES OR NO	Precedex is not available unless mcg/kg/hr is selected. Press **Yes** to enable Precedex delivery while programming a Weight Dosed therapy.

4. To exit CUSTOM mode after all changes have been made, press [BACKUP]. Then press [YES/ENTER]. Save changes. Press [YES].
5. [BACKUP] to return to STOP or PROGRAMMING screen.

```
****************************************
*            HOSPIRA GEMSTAR           *
*      DEFAULT MODE CONFIGURATION      *
****************************************

Pump Serial Number: XXXXXXXX

           10:45AM  JUN 11, 05
             VERSION X.X.X

CONFIGURATION CHANGED hh:mmXM MMM DD, YY
PUMP SETTINGS                     DEFAULT
THERAPIES                 T P I C W mL V
PROGRAM REVIEW                       YES
SHIFT TOTALS                         YES
SHIFT OR CONT                  CONTAINER
CONTACT PHONE
AIR SENSITIVITY                      ALL
DISPLAY OPERATION TEST WARNING        NO
OPERATION TEST FREQUENCY       365 DAYS
OPERATION TEST CALL BACK TIME  DISABLED
LOCK CODE                         13000
LOCK REMINDER                        NO
UNLOCK PROMPT                        NO
AUTO LOCK                  NO AUTO LOCK
BOLUS PLACEBO                        YES
PAIN MANAGEMENT MAX BOLUS         25 mL
PAIN MANAGEMENT BOLUS RATE    125 mL/hr
VARIABLE TIME BOLUS RATE      400 mL/hr
MINIMUM LOCKOUT               5 MINUTES
PAIN MANAGEMENT PROG. TYPES     C B C+B
PAIN MANAGEMENT UNITS         mL mg mcg
PAIN MANAGEMENT MAX RATE       25 mL/hr
PAIN MANAGEMENT MAX LD            25 mL
PAIN MANAGEMENT LD RATE       125 mL/hr
PAIN MANAGEMENT DOSE LIMIT   ALL LIMITS
PAIN MANAGEMENT MAX PRIME        8.3 mL
PIGGYBACKING                         YES
WEIGHT DOSED UNITS               DEFAULT
ENABLE PRECEDEX                       NO
WEIGHT DOSED LD MAX TIME      60 MINUTES
WEIGHT DOSED LD MAX RATE     1000 mL/hr

****************************************
*    VERIFIED BY:                      *
****************************************
****************************************
*   END OF DEFAULT MODE CONFIGURATION  *
****************************************
```

Figure 1. Sample printout of factory DEFAULT settings for a 7-Therapy pump.

```
****************************************
*            HOSPIRA GEMSTAR           *
*      CUSTOM MODE CONFIGURATION       *
****************************************

Pump Serial Number: XXXXXXXX

           11:15AM  JUN 11, 05
             VERSION X.X.X

CONFIGURATION CHANGED hh:mmXM MMM DD, YY
PUMP SETTINGS                     CUSTOM
THERAPIES                          T P mL
PROGRAM REVIEW                       YES
SHIFT TOTALS                          NO
SHIFT OR CONT                      SHIFT
CONTACT PHONE
AIR SENSITIVITY                      ALL
DISPLAY OPERATION TEST WARNING        NO
OPERATION TEST FREQUENCY       365 DAYS
OPERATION TEST CALL BACK TIME    7 DAYS
LOCK CODE                         12345
LOCK REMINDER                        NO
UNLOCK PROMPT                       YES
AUTO LOCK                  NO AUTO LOCK
BOLUS PLACEBO                        YES
PAIN MANAGEMENT MAX BOLUS         25 mL
PAIN MANAGEMENT BOLUS RATE    100 mL/hr
VARIABLE TIME BOLUS RATE      400 mL/hr
MINIMUM LOCKOUT               5 MINUTES
PAIN MANAGEMENT PROG. TYPES     C B C+B
PAIN MANAGEMENT UNITS         mL mg mcg
PAIN MANAGEMENT MAX RATE       25 mL/hr
PAIN MANAGEMENT MAX LD            25 mL
PAIN MANAGEMENT LD RATE       125 mL/hr
PAIN MANAGEMENT DOSE LIMIT   ALL LIMITS
PAIN MANAGEMENT MAX PRIME        8.3 mL
PIGGYBACKING                         YES
WEIGHT DOSED UNITS                CUSTOM
ENABLE PRECEDEX                      YES
WEIGHT DOSED LD MAX TIME      60 MINUTES
WEIGHT DOSED LD MAX RATE     1000 mL/hr

****************************************
*    VERIFIED BY:                      *
****************************************
****************************************
*   END OF CUSTOM MODE CONFIGURATION   *
****************************************
```

Figure 2. Sample printout of CUSTOM settings for a 7-Therapy pump.

Enhanced Configuration Selection Sheet Facility Name _____

Select this menu Item	To configure the following functions:	Default Settings	Facility Setting
1. **Reset Defaults**	NA	YES	Circle one: **YES** **NO**
2. **GENERAL PUMP**	01 THERAPIES	T (TPN) P (Pain Management) I (Intermittent) C (Continuous) W (Weight Dosed) mL (mL/hr Only) V (Variable)	Circle desired therapies: T (TPN) P (Pain Management) I (Intermittent) C (Continuous) W (Weight Dosed) mL (mL/hr Only) V (Variable)
	02 FORCED REVIEW	YES	Circle one: **YES** **NO**
	03 SHIFT TOTALS	YES	Circle one: **YES** **NO**
	04 DISPLAYED TOTALS	CONTAINER	Circle one: **SHOW CONTAINER** **SHOW SHIFT**
	05 CONTACT PHONE NUMBER	blank	Any combination up to 16 _____
	06 AIR SENSITIVITY	ALL SELECTIONS	Circle one: **ON** (0.5mL) **2 mL** **ALL SELECTIONS** (ON, 2mL, OFF)
	07 DISP OT WARN (Display Operation Test Warning)	NO	Circle one: **YES** **NO**
	08 OT FREQUENCY (Operation Test Frequency)	365 Days	1-365 Days (Enter desired number of days) _____
	09 OTCALL BACK (Operation Test Call Back)	DISABLED (If enabled, 7 days)	1-364 Days (Enter desired number of days) _____
3. **KEYPAD LOCK**	01 LOCK CODE	13000	Any combination of 3 - 5 Digits _____
	02 LOCK REMINDER	NO	Circle one: **YES** **NO**
	03 UNLOCK PROMPT	NO	Circle one: **YES** **NO**
	04 AUTO LOCK	1 NO AUTO LOCK	Circle one: **NO AUTO LOCK** **RATE CHANGE** **CONTAINER** **FULL**
4. **BOLUS**	01 BOLUS PLACEBO	YES	Circle one: **YES** **NO**
	02 PM MAX BOLUS (Pain Management Maximum Bolus)	25 mL	0.1 - 25 mL (Enter desired amount) _____
	03 PM BOLUS RATE (Pain Management Bolus Rate)	125 mL / hr	1 - 125 mL / hr (Enter desired rate) _____
	04 VT BOLUS RATE (Variable Time Bolus Rate)	400 mL / hr	1 - 1000 mL / hr (Enter desired rate) _____
	05 MINIMUM LOCKOUT	5 minutes (Domestic) 3 minutes (International)	1 -5 minutes Enter the minimum lockout interval for bolus delivery.
5. **PM (PAIN MANAGEMENT SPECIFIC)**	01 PAIN MGMT (PM) (Pain Management)	CONT (Continuous) BOLUS (Bolus) C & B (Continuous & Bolus)	Circle desired combination of delivery types: **CONT (Continuous)** **BOLUS (Bolus)** **C & B (Continuous & Bolus**)
	02 PM UNITS (Pain Management Units)	mg, mcg, mL	Circle desired combination of the three units of delivery: **mg** **mcg** **mL**
	03 PM MAX RATE (Pain Management Maximum Rate)	25 mL / hr	0.1 - 25 mL / hr (Enter desired rate) _____
	04 PM MAX LD (Pain Management Maximum Loading Dose)	25 mL	0.1 - 25 mL (Enter desired amount) _____
	05 PM LD RATE (Pain Management Loading Dose Rate)	125 mL / hr	1 - 125 mL / hr (Enter desired rate) _____
	06 PM DOSE LIMIT (Pain Management Dose Limit)	ALL LIMITS	Select only one dose limit if all limits are not desired: **1 HOUR** **4 HOUR** **# BOLUSES / HOUR** **ALL LIMITS**
	07 PM MAX PRIME (Pain Management Maximum Prime Volume)	8.3 mL	4.6 - 8.3 mL (Enter desired amount) _____
6. **OTHER**	01 PIGGYBACKING	YES	Circle one: **YES** **NO**
	02 WD UNITS (Weight Dosed)	mcg / kg /min mcg / kg / hr mcg / min mg / kg / min mg / kg /hr mg / min mL / hr NOT USED NOT USED NOT USED NOT USED NOT USED NOT USED NOT USED NOT USED NOT USED	Indicate Numerical Preference: mcg / kg /min _____ mcg / kg / hr _____ mcg / min _____ mcg / hr _____ mg / kg / min _____ mg / kg /hr _____ mg / min _____ mg / hr _____ grams / hr _____ ng / kg / min _____ U / kg / hr _____ U / min _____ U / hr _____ mUn / min _____ mEq / hr _____ mL / hr _____ NOT USED _____